

Appl. No. 09/782,151  
Amdt. dated July 19, 2005  
Reply to Office Action of April 19, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of capturing operating software scheduling information during execution of operating software, the method comprising the steps of:

compiling operating software scheduling information capture software as part of the operating system, the operating software scheduling information capture software being operative to record a history of operating software events as they occur, information related to the history being organized and stored as operating software program scheduling information relating to interactions between the operating system software and each of the programs and tasks managed by the operating system software, the scheduling information including indications of relative priorities of programs and tasks, indications of transfers of control from lower priority to higher priority tasks and identification of tasks waiting for execution at the occurrence of each operating software event;

invoking operating software scheduling information capture; and

recording operating software scheduling information for relatively long duration storage in order to permit review of the scheduling information by a user, duration of storage being sufficient to allow data collected during an operating session to be retrieved and used after termination of the session.

2. (original) The method as claimed in claim 1, wherein the operating software scheduling information capture procedure is invoked on an operating software task switch.

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3. (original) The method as claimed in claim 1, wherein the operating software scheduling information recorded includes information updated or maintained by the operating software in relation to the scheduling of a program.
4. (original) The method as claimed in claim 1, wherein the operating software scheduling information recorded includes task identification, task priority, and task run-time length.
5. (original) The method as claimed in claim 1, wherein the operating software scheduling information includes a task waiting count.
6. (original) The method as claimed in claim 1, wherein the operating software scheduling information is recorded to a ledger.
7. (original) The method as claimed in claim 6, wherein the ledger is at least one of a circular or fixed length ledger.
8. (original) The method as claimed in claim 1, wherein the scheduling information includes at least one of the number of program schedules, program preempts, and interrupts.
9. (original) The method as claimed in claim 1, wherein the scheduling information includes at least one of the highest priority attained, program identity and length of run-time.
10. (original) The method as claimed in claim 1, wherein the scheduling information includes at least one of the lowest priority attained, program identity and length of run-time.
11. (original) The method as claimed in claim 1, where the scheduling information includes at least one of the number of times in the idle loop and length of run-time.

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12. (original) The method as claimed in claim 1, wherein the scheduling information includes a sequential record of at least one of scheduled programs, priorities and events.

13. (original) The method as claimed in claim 1, wherein the scheduling information includes at least one of the number and identity of programs waiting to run.

14. (original) The method as claimed in claim 1, wherein the operating software scheduling information capture is invoked on an event occurrence.

15. (currently amended) A method of capturing operating software scheduling information during execution of said operating software, wherein said method is performed using operating software scheduling information compiled and integrated with the operating software, the method comprising the steps of:

invoking operating software scheduling information capture software, the operating software scheduling information capture software being operative to record a history of operating software events as they occur, the history being organized and stored as operating software program scheduling information relating to interactions between the operating system software and each of the programs and tasks managed by the operating system software, the scheduling information including indications of relative priorities of programs and tasks, indications of transfers of control from lower priority to higher priority tasks and identification of tasks waiting for execution at the occurrence of each operating software event; and

recording operating software scheduling information for relatively long duration storage in order to permit review of the scheduling information by a user, duration of storage being sufficient to allow data collected during an operating session to be retrieved and used after termination of the session.

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16. (original) The method as claimed in claim 15, wherein said operating software scheduling information capture software is not resident on an external device.
17. (original) The method as claimed in claim 15, wherein said operating software scheduling information capture software is not a separate task scheduled by an operating software scheduler.
18. (currently amended) A computer system for capturing operating software scheduling information during execution of said operating software comprising:
  - a processor for receiving and transmitting data; and
  - a memory coupled to the processor, the memory having stored therein sequences of instructions which, when executed by the processor, cause the processor to invoke operating software scheduling information capture software, the operating software scheduling information capture software being operative to record a history of operating software events as they occur, the history being organized and stored as operating software program scheduling information relating to interactions between the operating system software and each of the programs and tasks managed by the operating system software, the scheduling information including indications of relative priorities of programs and tasks, indications of transfers of control from lower priority to higher priority tasks and identification of tasks waiting for execution at the occurrence of each operating software event, and to record operating software scheduling information for relatively long duration storage in order to permit review of the scheduling information by a user, duration of storage being sufficient to allow data collected during an operating session to be retrieved and used after termination of the session.

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19. (original) The computer system as claimed in claim 18, wherein said operating software scheduling information capture software is internally processed on said processor.

20. (original) The computer system as claimed in claim 18, wherein said operating software scheduling information capture software is not a separate task scheduled by an operating software scheduler.